



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,453	06/05/2001	Varinder K. Kalra	CET-026177	5825

7590

01/24/2003

John S. Beulick
Armstrong Teasdale LLP
One Metropolitan Sq., Suite 2600
St. Louis, MO 63102

EXAMINER

VORTMAN, ANATOLY

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 01/24/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,453

Applicant(s)

KALRA ET AL.

Examiner

Anatoly Vortman

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 7, 9, 10, 12, and 15-20, are rejected under 35 U.S.C. 102(b) as being anticipated by US/1,466,423 to Conrad.

Regarding claims 1, 4, 7, 12, and 15, Conrad disclosed (Fig. 2-6) a fuse comprising a fuse body (11) comprising a first end a second end and a bore having a circular cross section and extending therethrough, said bore comprising a clearing portion having a first cross sectional area and a positioning portion (15) having a second cross sectional area; said first cross sectional area different (larger) than said second cross sectional area; and

a fuse element assembly (Fig. 3) situated in said bore (Fig. 4), said fuse element assembly comprising an outer dimension (41) substantially coextensive with said second cross sectional area, said outer dimension (41) substantially centered within said first cross sectional area, thereby ensuring a clearance between said fuse element assembly and said fuse body (11) within said clearing portion (Fig. 4, 5).

Art Unit: 2835

Regarding claims 2 and 18, Conrad disclosed that said clearing portion extends for a first length, said positioning portion (15) extends for a second length, said first length greater than said second length.

Regarding claims 3, 9, 10, 16, 19 and 20, Conrad disclosed that said bore further comprising a conical guide portion (17) having a third length which is less than said first length or said second length, and intermediate said clearing portion and said positioning portion (15), said guide portion (17) further comprising a cross sectional area intermediate said first cross sectional area and said second cross sectional area (Fig. 2).

Regarding claim 17, Conrad disclosed (Fig. 8) that said fuse element assembly comprises at least one fuse element (51) comprising a first end, a second end, and a central portion, said fuse element assembly situated in said bore so that said central portion of said at least one fuse element is disposed within said clearing portion (Fig. 4, 5).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 8, and 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conrad ('423).

Art Unit: 2835

Regarding claims 6, 8, and 13, Conrad disclosed all of the claims limitations as apply to claims 1, 7, and 12, respectively, but did not disclose that said fuse body (11) is fabricated from Alumina Zirconia.

Alumina Zirconia (ceramic) has been notoriously known in the fuse art at the time the invention was made as a well-suited material for manufacturing components of fuses. Therefore, it would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to select any suitable material, including said Alumina Zirconia ceramic, for making said fuse body of Conrad, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

5. Claims 5, 11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conrad in view of US/5,214,406 to Reese et al., (Reese).

Regarding claims 5, 11, and 14, Conrad disclosed all of the claims limitations as apply to claims 3, 7, and 12, respectively, but did not disclose that said fuse body is substantially rectangular and has substantially square end surfaces.

Reese disclosed a fuse (Fig. 1-5) having a fuse body, which is substantially rectangular, and has substantially square end surfaces.

Since the inventions of Conrad and Reese are from the same field of endeavor (electrical fuses), the purpose of the rectangular fuse body disclosed by Reese would be recognized in the invention of Conrad.

Art Unit: 2835

It would have been obvious to a person of ordinary skill in the fuse art at the time the invention was made to produce said fuse body of Conrad in substantially rectangular shape as taught by Reese in order, for example, to facilitate mounting of the fuse.

Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive.

The main thrust of the Applicant's arguments is directed to the assertion that Conrad (US/1,466,423) did not disclose a fuse body having a *bore*. On the contrary, the Examiner believes that interpretation of the Conrad's' element (11) as a fuse body having a *bore* is correct, since the hollow passage inside said fuse body (11) may be considered to be a *bore* in view of the definition taken from the Academic Press Dictionary of Science and Technology" (Edited by Christopher Morris, p. 292), e.g. **bore** - "*a circular or ellipsoidal hole or interior of a cylinder, pipe, or tube*". As depicted on Fig. 2 of Conrad, said hollow passage in the fuse body (11) perfectly satisfies the aforementioned definition.

Also, the Applicant has indicated that said element (11) is not a "fuse body", since it is "analogous to a fuse holder, and not a fuse body".

The Examiner believes, that element (11) of Conrad serves the same or equivalent purpose as the "fuse body" of the present invention, e.g. to accommodate a fuse element assembly. As stated in MPEP § 2186, in determining equivalence, "[a]n analysis of the role played by each element in the context of the specific patent claim will thus inform the inquiry as to whether a substitute element matches the function, way, and result of the claimed element, or

whether the substitute plays a role substantially different from the claimed element.” 41 USPQ2d at 1875. In the instant case, the Examiner believes that the substitute element of Conrad (i.e. element (11)) perfectly matches the function, way, and result of the claimed “fuse body” of the present invention.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anatoly Vortman whose telephone number is 703-308-7824. The examiner can normally be reached on 9:30-6:00, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg can be reached on 703-308-4815. The fax phone numbers for

Application/Control Number: 09/874,453

Page 7

Art Unit: 2835

the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Anatoly Vortman
Primary Examiner
Art Unit 2835

A handwritten signature in dark ink, appearing to read 'A. Vortman', with a horizontal line extending to the right.

A.V.
January 21, 2003